

Title (en)
CCD AREA IMAGE SENSOR AND METHOD FOR COLOR IMAGING

Publication
EP 0133835 A3 19860528 (EN)

Application
EP 84401645 A 19840808

Priority
US 52234383 A 19830811

Abstract (en)
[origin: EP0133835A2] A solid state area image sensor for producing color video information comprises an array of like-shaped, color-responsive photoelements arranged in successive horizontal rows such that, except at the edges of the array, any one photoelement having one color response is surrounded by six adjacent photoelements all having color responses differing from the one surrounded photoelement, in an approximately hexagonal array. Color video information is produced in response to combined signals from three mutually adjacent photoelements by processing the photoelement output signals two rows at a time and producing color video information in response to signals from three mutually adjacent photoelements of three different color responses in adjacent rows. The three different color responses are white (w), yellow (Ye), and cyan (Cy), and luminance (L) and chrominance (RGB) information is produced in accordance with the equations: $L = Cy + Ye + 0.66aW$; $R = W - Cy$; $G = Cy + Ye - W$; $B = W - Ye$; where L is luminance, R is red, G is green, B is blue and a is an adjustable quantity near unity.

IPC 1-7
H04N 9/04

IPC 8 full level
H04N 9/07 (2006.01); **H04N 9/04** (2006.01)

CPC (source: EP US)
H04N 25/135 (2023.01 - EP US)

Citation (search report)
[X] FR 2511829 A1 19830225 - HITACHI LTD [JP]

Cited by
US5150204A; GB2170374A; US4816910A; GB2170675B; US8537216B2; WO2009038618A1

Designated contracting state (EPC)
DE FR GB IT NL

DOCDB simple family (publication)
EP 0133835 A2 19850306; EP 0133835 A3 19860528; JP S6058786 A 19850404

DOCDB simple family (application)
EP 84401645 A 19840808; JP 16661684 A 19840810